

IN THE CLAIMS

This listing of the claim will replace all prior versions and listings of claim in the present application.

Listing of Claims

1. (currently amended) ~~A cell packet transfer control method on an asynchronous transfer mode network~~ a packet switching device, said method, comprising the steps of:

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~~when setting up a connection belonging to a particular traffic class which does not make bandwidth reservation,~~ sending a packet including a traffic class indicative of a packet transfer ~~storing information indicative of a priority and information indicative of a priority related to cell packet discarding~~ discard declared from a source unit in any of nodes in said network corresponding to an identifier of said connection; and

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storing said information indicative of a priority related to packet discarding; and

~~when congestion occurs on the connection,~~ performing ~~instructing said node to perform selective discard processing on cell packets belonging to said particular traffic class in conformity with~~ a predetermined discard condition determined by a relationship between the status of said congestion and said priority based on said information indicative of a priority related to packet discarding.

Claims 2-4 (canceled). ✓

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5. (currently amended) A cellpacket transfer control method according to claim 31, wherein: said ~~node~~ packet switching device determines whether or not a data block included in a data portion of each packet of said particular traffic class is divided from the same transmission message as a data portion of a previous packet, and performs the packet discarding on packets having the discard condition in units of transmission message. ~~judget whether nor not a data block included in a data portion of each cell of said particular traffic class is divided from the same transmission message as a data portion of a previous cell, and performs the discard processing on cells falling under the discard condition in units of transmission message.~~

Claim 6 (canceled). ✓

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7. (currently amended) A cellpacket transfer control method according to claim 5, wherein: said ~~node~~ packet switching device starts the discard processing on cellspackets having which fall under a predetermined discard condition determined by a ~~relationship between said congestion status and said priority~~, and continues the discard processing on subsequent cellspackets including part of the same transmission message as data portions of already discarded cellspackets, ~~even if the subsequent cells deviate from said discard condition due to a change in said congestion status.~~

Claim 8 (canceled). ✓

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9. (currently amended) A cellpacket transfer control method according to claim 5, wherein: said ~~node~~ packet switching device excludes cellspackets including data blocks of the same transmission message as data portions of previously sent cellspackets from cellspackets to be discarded, ~~within cells falling under a predetermined discard condition determined from a relationship between said congestion status and said priority, and starts the discard processing from a~~ cellpacket including a head data block of a subsequent new message.

Claim 10 (canceled). ✓

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11. (currently amended) A packet switching device ~~connected to a plurality of input lines and to a plurality of output lines for transferring each fixed length packet (hereinafter referred to as the "cell") packets inputted from each input line to any output line determined by cell header information, comprising:~~

~~means for extracting a traffic class indicative of a packet transfer priority and information indicating a priority related to packet discarding from a packet, operative when setting up a connection belonging to a particular traffic class which does not make bandwidth reservation, for storing information indicative of a priority related to cell discard declared from a calling unit as sub-class information corresponding to an identifier of said connection;~~

~~means for storing said information indicating a priority related to packet discarding; and~~

~~means for detecting a congestion status on each of said output lines; and~~
means for selectively performing discard processing on a ~~cell~~packet belonging to said particular traffic class in conformity ~~to~~with a predetermined discard condition determined by ~~a relationship between a congestion status on an output line, to which the cell is to be transferred, and said priority~~based on said information indicating a priority related to packet discarding.

Claims 12-28 (canceled). ✓

Sub 29. (currently amended) A packet processing device ~~according to claim 28,~~

~~wherein:~~for processing a packet, comprising:

means for receiving a user packet including traffic class information and sub-class information indicative of a priority related to packet discard, and storing said traffic class information and said sub-class information from said user packet; and

packet discard control means operative to selectively discard user packets by specifying user packets to be discarded based on a priority related to packet discard indicated by said sub-class information,

wherein user packets are selectively discarded in accordance with said sub-class information to which each user packet belongs, even if the user packets belong to the same traffic class,

wherein each user packet ~~a header portion of each user cell~~ includes a data block and a header portion which includes delimiter information which indicates a correspondence of said user packet to a data unit of a transmission message ~~set in a~~

~~data portion subsequent thereto, and delimiter information indicative of a relationship with a data unit treated by a higher rank protocol; and~~

~~wherein said cellpacket discard control means specifies user cellspackets to be discarded in data units of a transmission message said higher rank protocol based on the delimiter information of each user cellpacket.~~
